

Serial No.: 09/977,438

BEST AVAILABLE COPY**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of operating a server for communicating real time media data between a first client and a second client, the method comprising:
 - a) receiving a first RTP channel request from a first proxy server with which the first client is registered, the first proxy server generating the RTP channel request in response to receiving a first invite signaling message from the first client;
 - b) establishing a first RTP channel to support relay of a media session between the first client and the second client and providing an indication of the first RTP channel to the first proxy server in response to receiving the first RTP channel request;
 - c) receiving a second RTP channel request from a second proxy server with which the second client is registered;
 - d) establishing a second RTP channel to support relay of the media session between the first client and the second client and providing an indication of the second RTP channel to the second proxy server in response to the second RTP channel request;
 - e) receiving a second media datagram originated by second client and addressed to the first RTP channel by the second client, the first RTP channel being communicated to the second client by:
the first proxy server sending a second invite signaling message to the second proxy server, the second invite signaling message indicating the first RTP channel as the destination to which the second client is to address media datagrams; and
the second proxy server sending a third invite signaling message to the second client, the third invite signaling message indicating the first RTP

Serial No.: 09/977,438

channel as the destination to which the second client is to address media datagrams;

f) receiving a first media datagram originated by the first client and addressed to the second RTP channel, the second RTP channel being communicated to the first client by:

the second proxy server sending a response signaling message to the first proxy server, the response signaling message indicating the second RTP channel as the destination to which the first client is to address media datagrams; and

the first proxy server sending a second response signaling message to the first client, the second response signaling message indicating the second RTP channel as the destination to which the first client is to address media datagrams;

a) g) extracting a first client source network address from a-the first media datagram originated by the first client;

b) h) extracting a second client source network address from a-the second media datagram originated by the second client;

c) i) sending a third media datagram to the first client source network address, wherein the third media datagram includes media data from media datagrams received from the second client on the first RTP channel; and

d) j) sending a fourth media datagram to the second client source network address, wherein the fourth media datagram includes media data from media datagrams received from the first client on the second RTP channel.

2. (Currently Amended) The method of operating a server for communicating real time media data of claim 1, wherein:

- a) the first client source network address comprises an Internet Protocol address of a firewall server supporting the first client;
- b) the second client source network address comprises an Internet Protocol address of a firewall server supporting the second client;

Serial No.: 09/977,438

- c) the method further comprises:
 - extracting a source port number from the second media datagram originated by the second client; and
 - extracting a source port number from the first media datagram originated by the first client;
- e) d) the step of sending a third media datagram to the first client source network address includes sending the third media datagram to the source a-port number extracted from the first media datagram; and
- d) e) the step of sending a fourth media datagram to the second client source network address includes sending the fourth media datagram to the source a-port number extracted from the second media datagram.

3. (Currently Amended) The method of operating a server for communicating real time media data of claim 2, wherein: further including:

- a) the first RTP channel comprises an IP address of the server and a first port number; and establishing a first port number for receipt of the first media datagram and providing an indication of the first port number to the first client;
- b) the second RTP channel comprises the IP address fo the server and a second port number. establishing a second port number for receipt of the second media datagram and providing an indication of the second port number to the second client; and wherein the third media datagram includes the first port number as a source port number and the fourth media datagram includes the second port number as a source port number.

4. (Currently Amended) The method of operating a server for communicating real time media data of claim 3, wherein the first port number and the second port number are the same.

5. (Currently Amended) The method of operating a server for communicating real time media data of claim 1, wherein: further including:

Serial No.: 09/977,438

- a) the first RTP channel comprises an IP address of the server and a first port number; and establishing a first port number for receipt of the first media datagram and providing an indication of the first port number to the first client;
- b) the second RTP channel comprises the IP address fo the server and a second port number. establishing a second port number for receipt of the second media datagram and providing an indication of the second port number to the second client; and wherein the third media datagram includes the first port number as a source port number and the fourth media datagram includes the second port number as a source port number.

6. (Currently Amended) The method of operating a server for communicating real time media data of claim 5, wherein the first port number and the second port number are the same.

Claims 7 – 14 Canceled

15. (Currently Amended) A device for relaying real time media data between a first client and a second client, the device comprising:

- a) a network interface circuit for communicating with each of the first client and the second client via a data network;
- b) a media communication application operatively coupled to the network interface circuit for:
 - i) receiving a first RTP channel request from a first proxy server with which the first client is registered, the first proxy server generating the RTP channel request in response to receiving a first invite signaling message from the first client;
 - ii) establishing a first RTP channel to support relay of a media session between the first client and the second client and providing an indication of the first RTP channel to the first proxy server in response to receiving the first RTP channel request;

Serial No.: 09/977,438

iii) receiving a second RTP channel request from a second proxy server with which the second client is registered;

iv) establishing a second RTP channel to support relay of the media session between the first client and the second client and providing an indication of the second RTP channel to the second proxy server in response to the second RTP channel request;

v) receiving a second media datagram originated by second client and addressed to the first RTP channel by the second client, the first RTP channel being communicated to the second client by:

the first proxy server sending a second invite signaling message to the second proxy server, the second invite signaling message indicating the first RTP channel as the destination to which the second client is to address media datagrams; and

the second proxy server sending a third invite signaling message to the second client, the third invite signaling message indicating the first RTP channel as the destination to which the second client is to address media datagrams;

vi) receiving a first media datagram originated by the first client and addressed to the second RTP channel, the second RTP channel being communicated to the first client by:

the second proxy server sending a response signaling message to the first proxy server, the response signaling message indicating the second RTP channel as the destination to which the first client is to address media datagrams; and

the first proxy server sending a second response signaling message to the first client, the second response signaling message indicating the second RTP channel as the destination to which the first client is to address media datagrams;

Serial No.: 09/977,438

i)-vii extracting a first client source network address from a-the first media datagram originated by the first client and received by the network interface circuit;

ii)-viii extracting a second client source network address from a-the second media datagram originated by the second client and received by the network interface circuit;

iii)-ix driving the network interface circuit to send a third media datagram to the first client source network address, wherein the third media datagram includes media data from media datagrams received from the second client on the first RTP channel; and

iii)-x driving the network interface circuit to send a fourth media datagram to the second client source network address, wherein the fourth media datagram includes media data from media datagrams received from the first client on the second RTP channel.

16. (Currently Amended) The device for relaying real time media data between a first client and a second client of claim 15, wherein:

- i) the first client source network address comprises an Internet Protocol address of a firewall server supporting the first client;
- ii) the second client source network address comprises an Internet Protocol address of a firewall server supporting the second client;
- iii) the method performed by the media communication application further comprises:
extracting a source port number from the second media datagram
originated by the second client; and
extracting a source port number from the first media datagram
originated by the first client;
- iv) the step of driving the network interface circuit to send a third media
datagram to the first client source network address includes sending the third

Serial No.: 09/977,438

media datagram to the source a-port number extracted from the first media datagram; and

iv) y} the step of driving the network interface circuit to send a fourth media datagram to the second client source network address includes sending the fourth media datagram to the source a-port number extracted from the second media datagram.

17. (Currently Amended) The device for relaying real time media data of claim 16, wherein ~~the media data application further provides for:~~

a) the first RTP channel comprises an IP address of the device for relaying real time media data and a first port number; and establishing a first port number for receipt of the first media datagram and driving the network interface circuit to provide an indication of the first port number to the first client;

b) the second RTP channel comprises the IP address of the device for relaying real time media data and a second port number, establishing a second port number for receipt of the second media datagram and driving the network interface circuit to provide an indication of the second port number to the second client; and wherein the third media datagram includes the first port number as a source port number and the fourth media datagram includes the second port number as a source port number.

18. (Original) The device for relaying real time media data of claim 17, wherein the first port number and the second port number are the same.

19. (Currently Amended) The device for relaying real time media data of claim 15, wherein ~~the media data application further provides for:~~

a) the first RTP channel comprises an IP address of the device for relaying real time media data and a first port number; and establishing a first port number for receipt of the first media datagram and driving the network interface circuit to provide an indication of the first port number to the first client;

Serial No.: 09/977,438

b) the second RTP channel comprises the IP address of the device for relaying real time media data and a second port number, establishing a second port number for receipt of the second media datagram and driving the network interface circuit to provide an indication of the second port number to the second client; and wherein the third media datagram includes the first port number as a source port number and the fourth media datagram includes the second port number as a source port number.

20. (Original) The device for relaying real time media data of claim 19, wherein the first port number and the second port number are the same.

Claims 21 – 28 Cancelled

29. (New) The method of operating a server for communicating real time media data of claim 3, wherein:

the step of sending a third media datagram to the first client source network address forth includes sending the third media datagram from the second RTP channel comprising the IP address of the server and the second port number; and

the step of sending a fourth media datagram to the second client source network address further includes sending the fourth media datagram from the first RTP channel comprising the IP address of the server and the first port number.

30. (New) The method of operating a server for communicating real time media data of claim 5, wherein:

the step of sending a third media datagram to the first client source network address forth includes sending the third media datagram from the second RTP channel comprising the IP address of the server and the second port number; and

the step of sending a fourth media datagram to the second client source network address further includes sending the fourth media datagram from the first RTP channel comprising the IP address of the server and the first port number.

Serial No.: 09/977,438

31. (New) The method of operating a server for communicating real time media data of claim 17, wherein:

driving the network interface circuit to send a third media datagram to the first client source network address forth includes sending the third media datagram from the second RTP channel comprising the IP address of the server and the second port number; and

driving the network interface circuit to send a fourth media datagram to the second client source network address further includes sending the fourth media datagram from the first RTP channel comprising the IP address of the server and the first port number.

32. (New) The method of operating a server for communicating real time media data of claim 19, wherein:

driving the network interface circuit to send a third media datagram to the first client source network address forth includes sending the third media datagram from the second RTP channel comprising the IP address of the server and the second port number; and

driving the network interface circuit to send a fourth media datagram to the second client source network address further includes sending the fourth media datagram from the first RTP channel comprising the IP address of the server and the first port number.

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